



## **PROGRESS REPORT NO. 100**

**TO:** Dr. Laura Buelow – U.S. Environmental Protection Agency (EPA) - via Email  
Matt Wilkening – U.S. Environmental Protection Agency (EPA) - via Email

**FROM:** Kris McCaig – Teck American Incorporated (TAI)

**DATE:** November 7, 2014

**FILE NO:** 01-773180-000

**RE:** Upper Columbia River (UCR) Remedial Investigation/Feasibility Study  
(RI/FS) - Progress Report No. 100 Month Ending October 2014

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Pursuant to Paragraph 39 of the June 2, 2006 Settlement Agreement (Agreement), the following is intended to provide a summary of activities completed during the past month in compliance with the aforementioned Agreement. It is also intended to provide a brief summary of pending and on-going activities.

Phase 2 Sediment Study - Field sampling activities commenced at the beginning of September and were completed on October 24, 2013. Field sediment and porewater chemistry analysis is complete and validated data were submitted to EPA for quality assurance review. EPA provided review comments to TAI on February 26, 2014 and TAI responded with a memo addressing EPA's comments on March 3, 2014.

Short-term bioassay tests (i.e., 10-day *Chironomus dilutes* and 28-day *Hyalella azteca*) were completed for all batches on April 24, 2014. Bioassay test data and analytical chemistry data for porewater and sediment samples collected during the short term bioassay tests have been loaded into the project database; chemistry data is awaiting EPA quality assurance review.

As required by the quality assurance project plan (QAPP), TAI submitted a technical memorandum, using preliminary biology and chemistry data from short term bioassay tests to propose 18 sediment samples for long term bioassay testing, to EPA on June 30, 2014. On July 8, 2014 TAI received an email from Cameron Irvine of CH2M Hill (EPA's contractor) with questions about data presented in the memorandum; TAI responded to Cameron in an email dated July 16, 2014. Further discussions have taken place on the weekly Project Management conference calls between TAI and EPA and in addition, Cameron submitted a follow-up email requesting clarification on TAI's responses as it would be helpful for EPA's discussion and consideration of the above referenced data and TAI's recommended samples for longer-term sediment toxicity testing. TAI responded to Cameron's questions via email on September 24, 2014 and EPA provided

(in an electronic mail message dated October 8, 2014) response to TAI's above referenced technical memorandum. TAI is evaluating comments and preparing a response for delivery to EPA in November 2014.

TAI submitted a proposal to conduct backscatter electron microscopy (BSEM) on archived sediments on February 25, 2014 and followed up in March with supporting information requested by EPA. EPA provided a memorandum to TAI on June 4, 2014 requesting that 4 new samples be included in addition to those proposed by TAI; TAI submitted a technical memorandum describing how the BSEM will be performed on August 15, 2014. At the time of writing EPA has given approval (via email to TAI on November 6, 2014) for use of the contract laboratory (RJ Lee Group) that TAI identified in the tech memo.

Bossburg Flat Beach Refined Sediment and Soil Study - TAI is in receipt of EPA's August 26, 2014 letter with comments on the April 30, 2014 draft final version of the QAPP and submitted the Draft Final Version 2 of the QAPP on September 26, 2014.

Soil Study – Field sampling activities commenced on September 8, 2014 and were completed on October 23, 2014. Chemistry analysis of the incremental composite soil samples is underway and validated data will be submitted to EPA by January 26, 2014.

Benthic Macroinvertebrate Tissue Study – TAI is in receipt of EPA's August 19, 2013 Expected Level of Effort For Sampling Benthic Macroinvertebrate Tissue, Upper Columbia River paper and the TAI technical team has been reviewing and evaluating in coordination with EPA and the National Park Service. TAI is currently drafting the study QAPP and will submit to EPA for review and comment on or before November 17, 2014.

Human Health - TAI received from EPA, the draft data analysis report (DAR) for the Recreational Use Survey on January 17, 2014 and submitted comments on the Recreational Use Survey DAR on June 11, 2014. TAI received EPA's June 20, 2014 draft final Tribal Survey DAR and response to TAI's February 13, 2014 comments; TAI provided comments to EPA on July 17, 2014.

Should you have any questions or require any additional information, please do not hesitate to contact me at 509-623-4501.